

## DAFTAR PUSTAKA

- Adewale, O.B., Anadoziea, S.O., Potts-Johnson, S.S., Onwuelu, J.O., Obafemi, T.O., Osukoya, O.A., Fadaka, A.O., Davids, H. and Roux, S. 2020. Investigation of Bioactive Compounds in *Crassocephalum Rubens* Leaf and In Vitro Anticancer Activity of Its Biosynthesized Gold Nanoparticles. *Biotechnology Reports*. **28**: 2-10.
- Ahmad, N., Ang, B.C., Amalina, M.A. dan Bong, C.W. 2018. Influence of Precursor Concentration and Temperature on The Formation of Nanosilver in Chemical Reduction Method. *Sains Malaysiana*. **47** (1): 157-168.
- Akilandaeaswari, B. and Muthu, K. 2020. Green Method For Synthesis and Characterization of Gold Nanoparticles Using *Lawsonia Inermis* Seed Extract and Their Photocatalytic Activity. *Materials Letters*. **277**: 1-5.
- Al-Radadi, N.S. 2021. Facile One-Step Green Synthesis of Gold Nanoparticles (AuNP ) Using Licorice Root Extract: Antimicrobial and Anticancer Study Against HEPG2 Cell Line. *Arabian Journal of Chemistry*. **14**: 1-25.
- Alshehri, M.A. 2016. Anticancer Activity of Methanolic Extract of *Momordica charantia* Against Human Colon, Liver and Breast Cancer Cell Lines-In Vitro. *Journal of Biology, Agriculture and Healthcare*. **6** (6): 106-111.
- Amin, F., Mahardika, M., dan Fatimah, S. Sintesis Dan Karakterisasi Nanopartikel Emas Menggunakan Bioreduktor Dari Ekstrak Daun Berenuk. *Teknik Kimia*,. **4** (2): 54-59.
- Amiruddin, M.A. dan Taufikurrohmah, T. 2013. Sintesis dan Karakterisasi Nanopartikel Emas menggunakan Matriks Bentonit Sebagai Material Peredam Radikal Bebas dalam Kosmetik. *UNESA Journal of Chemistry*. **2** (1): 68-75.
- Aouali, N., Morjani, H., Trussardi, A., Soma, E., Giraux, B. and Manfait, M. 2003. Enhanced Cytotoxicity And Nuclear Accumulation Of Doxorubicin-Loaded Nanospheres In Human Breast Cancer MCF-7 Cells Expressing MRP1. *International Journal of Oncology*. **23** (4): 1195-1201.
- Apriandanu, D., Wahyuni, S., Hadisaputro, S. dan Harjono. 2013. Sintesis Nanopartikel Perak menggunakan Metode Poliol dengan Agen Stabilisator Polivinilalkohol (PVA). *Jurnal MIPA*. **36** (2): 157-168.
- Aprilia, T.S., Sarindang, S.W., Putra, P.A. dan Hernawan, B. 2018. Pengobatan Anti Kanker Payudara Terbaru dari Ekstrak Daun Singkong (*Manihot glazovii*) Berbasis Teknologi Nanopartikel Emas. Yogyakarta: Universitas Islam Indonesia. *Jurnal Mahasiswa Khazanah*. **10** (2): 1-9.
- Ardianto, R., Mandey, F.W. dan Taba, P. 2020. Sintesis Nanopartikel Emas dengan Bioreduktor Ekstrak Batang Binahong (*Anredera cordifolia*) dan

- Uji Aktivitasnya Sebagai Antidiabetes Secara In Vitro. Makassar: Universitas Hasanuddin.
- Arifanti, L., Studiawan, S.H., Rakhmawati dan Megawati, L. 2014. Uji Aktivitas Ekstrak Biji Sirsak (*Annona muricata L.*) terhadap Sel Kanker Mamalia secara In Vitro. *Jurnal Farmasi dan Ilmu Kefarmasian Indonesia*. **1** (2): 63-66.
- Arora, N. dan Jadirgar, B.R. 2014. From (Au<sub>5</sub>Sn+ AuSn) Physical Mixture to Phase Pure AuSn and Au<sub>5</sub>Sn Intermetallic Nanocrystals with Tailored Morphology: Digestive Ripening Assisted Approach. *Physical Chemistry Chemical Physics*. **10**: 1-10.
- Artini, I.G.A. 2013. Peranan Nanopartikel Dalam Penatalaksanaan Kanker di Era Targeting Therapy. *Indonesian Journal of Cancer*. **7** (3): 111-117.
- Avadi, M. 2010. Preparation and Characterization Of Insulin Nanoparticles using Chitosan and Arabic Gum with Ionic Gelation Method. *Nanomed: Nanotech, Biol Med*. **6**: 58-63.
- Aviana, T., Hutajulu, T.F. dan Isyanti, M. 2015. Pembuatan Nano-Karotenoid Asal Konsentrat Minyak Sawit dengan Cara Sonikasi. *Jurnal Dinamika Penelitian Industri*. **26** (1): 11-18.
- Balasubramanian, D., Jelastin, S.M.K., Pushparaj, T.L. 2020. Biogenic Synthesis of Gold Nanoparticles Using *Jasminum auriculatum* Leaf Extract and Their Catalytic, Antimicrobial and Anticancer Activities. *Journal of Drug Delivery Science and Technology*. **57**: 1-12.
- Bambang, S.T. 2009. *Metode Dasar Kultur Jaringan Hewan*. Jakarta: Universitas Trisakti.
- Basavegowda, N., Idhayadhulla, A. and Lee, Y.R. 2014. Phyto-Synthesis of Gold Nanoparticles Using Fruit Extract of *Hovenia Dulcis* and Their Biological Activities. *Ind Crops Prod*. **52**: 745-751.
- Bawa, I. 2009. Isolasi dan Identifikasi Golongan Senyawa Toksik Dari Daging Buah Pare (*Momordica charantia*). *Jurnal Kimia*. **2** (3): 117-124.
- Billacura, M.P. dan Laciapag, G.C.R. 2017. Phytochemical Screening, Cytotoxicity, Antioxidant and Anthelmintic Property of The Various Extracts from *Chrescentia cujete* Linn. *Fruit. Sci. Int. Lahore*. **29** (2): 31-35.
- Butt, A.J., Firth, S.M., King, M.A. and Baxter, R.C. 2000. InsulinLike Growth Factor Binding Protein-3 Modulates Expression of Bax and Bcl-2 and Potentiates P53-Independent Radiation-Induced Apoptosis in Human Breast Cancer Cells. *J.Biol Chem*. **275** (50): 39174-39181.
- Camarillo, I.G., Xiao, F., Madhivanan, S., Salameh, T., Nichols, M., Reece, L.M. and Sundararajan, R. 2014. Low and High Voltage Electrochemotherapy For Breast Cancer: an In Vitro Model Study. *Electroporation-Based Therapies for Cancer*. **8**: 55–102.

- Cancer Chemoprevention Research Center. 2008. *Protocol in Vitro CCRC*. Yogyakarta: Gakultas Farmasi UGM. 1-12.
- Carballo, J.L., Hernandes-Inda, Z.L., Perez, P., Garcia-Gravalos, M.D. 2002. A Comparison Between Two Brine Shrimp Assays to Detect In-Vitro Cytotoxicity in Marine Natural Products. *BioMed*. **2** (17): 1472-6750.
- Chan, M.Z.K., Ulfa, I., Harahap, M.F.H., Utami, T.M., Putri, R.M. dan Lubis, H.M.L. 2017. Penghambat Aktivitas Proliferasi Sel dan Perubahan Histoipatologi Epitelial Jaringan Paru dengan Ekstrak Buah Pare (*Momordica charantia*). *Buletin Farmatera*. **2** (2): 85-94.
- Chen, J., Li, Y., Fang, G., Cao, Z., Shang, Y., Alfarraj, S., Ali, S., Alharbi, Li, J., Yang, S. and Duan, X. 2021. Green Synthesis, Characterization, Cytotoxicity, Antioxidant, and Anti-Human Ovarian Cancer Activities Of *Curcumae kwangsiensis* Leaf Aqueous Extract Green-Synthesized Gold Nanoparticles. *Arabian Journal of Chemistry*. **14**: 1-9.
- Clarance, P., Luvankar, B., Sales, J., Khusro, A., Agastian, P., Tack, J.C., Manal, M., Al-Khulaifi., Al-Shwaiman, H.A., Elgorban, A.M., Syed, A., Kim, H.J. 2020. Green Synthesis and Characterization of Gold Nanoparticles Using Endophytic Fungi *Fusarium Solani* and Its In-Vitro Anticancer and Biomedical Applications. *Saudi Journal of Biological Sciences*. **27**: 706-712.
- Cotton, F.A. dan Wilkinson, G. 1988. *Advanced Inorganic Chemistry, Edisi ke-5*. John Willey & Sons: New York.
- Cutler, S.J., dan Cutler, H.G. 2000. *Biologically Active Natural Product:Pharmaceutical*. CRC Press.
- David, S. Alwin., Rajadurai, S.I and Kumar, S.V. 2017. Biosynthesis of Copper Oxide Nanoparticles Using *Momordica charantia* Leaf Extract and Their Characterization. *IJARSE*. **6** (3): 313-320.
- Davis, J.M., Navolonic, P.M., Weinstein, C.R., Steelman, L.S., Konovlepa, H.M., Blagosklonny, M.V. and Mccubrey, J.A. 2003. RAF-1 And BCL-2 Induce Distinct dan Commn Pathway That Contribute to Cancer Drug Resistance. *Clinical Cancer Research*. **9**: 1161-1170.
- Deshmukh, A.R., Gupta, A. dan Kim, B.S. 2019. Ultrasound Assisted Green Synthesis of Silver and Iron Oxide Nanoparticles Using Fenugreek Seed Extract and Their Enhanced Antibacterial and Antioxidant Activities. *BioMed Research International*. **19**: 1-14.
- Dewi, A., Putri, S.E. dan Salempa, P. 2020. Sintesis dan Karakterisasi Nanopartikel Emas menggunakan Trisodium Sitrat sebagai Reduktor. *Jamb. J. Chem.* **2** (01): 10-16.
- Dewi, R. Side, S. dan Putri, S.E. 2020. Pengaruh Penambahan PVA terhadap Ukuran Nanopartikel Perak Hasil Sintesis Menggunakan Bioreduktor Ekstrak Daun Sirsak (*Annona muricata L.*). *Sainsmat*. **IX** (1): 1-13.

- Djati, M.S. 2006. *Teknologi Manipulasi dan Kultur Sel Jaringan Hewan*. Malang: UB Press.
- Effendi. 2007. *Kimia Koordinasi First Edition*. Malang: Banyu media.
- Ekezie, F.G.C., Sun, D.W. dan Cheng, J.H. 2017. Acceleration of Microwave Assisted Extraction Processes of Food Components by Integrating Technologies and Applying Emerging Solvents: A Review of Latest Developments. *Trends in Food Science and Technology*. **67**: 160-172.
- El-Deeb, N., Khattab, S.M., Abu-Youssef, M.A., dan Badr, A.M.A. 2022. Green Synthesis of Novel Stable Biogenic Gold Nanoparticles Therapeutics Via The Induction of Extrinsic and Intrinsic Pathways. *Scientific Reports*. **2**: 1-18.
- Falahudin, A., Yudha, S., Gustian, I., Adfa, M., Banon, C. dan Sutanto, T.D. 2020. Ekstrak Bunga Tapak Kuda (*Ipomoea pes-caprae* L. Sweet) Sebagai Medium Sintesis Nanopartikel Emas. *Jurnal Kimia dan Kemasan*. **42** (1): 7-13.
- Faradita, M.A. 2017. Preparasi dan Karakterisasi Nanopartikel Emas Ekstrak Daun Singkong Karet (*Manihot glaziovii*) dengan Proses Biosintesis Ramah Lingkungan. Universitas Islam Indonesia.
- Fatimah, I. 2012. Synthesis of Metal and Metal Oxide Nanoparticles Using Plant Extract: A Review. *Journal Ilmu-Ilmu Mipa*. **17** (1): 66-85.
- Fatimawati, Adithya, Y. dan Frenly, W. 2013. Acute Toxicity Test of Etanol Extract from Mangosteen Pericarp (*Garcinia Mangostana* L.) against *Artemia salina* Leach Larvae using Brine Shrimp Lethality Test (BSLT). *Pharmacon*. **2** (1). 97-101.
- Freshney, R.I. 2000. *Culture of Animal Cells, A Manual of Basic Technique 4<sup>th</sup> Edition*. A John Wiley & Sons inc, New York.
- Gaffar, S., Apriani, R. dan Herlina, T. 2018. Aktivitas Sitotoksik Ekstrak Etanol, Fraksi Etil Asetat dan N-heksana Daun Kelor (*Moringa oleifera*) Terhadap Sel Kanker Payudara T47D. *ALCHEMY*. **14** (2): 303-313.
- GLOBOCAN. 2008. European Age-standardised Rates Calculated By Statistical Information Team at Cancer Research UK 2011 Using Data from GLOBOCAN. *IARC*. **1**: 1-11.
- Gu, Z.M., Zeng, L., Schwedler, J.T., Wood, K.V., dan McLaughlin, J.L. 1995. New Bioactive Adjacent bis-THF Annonaceous Acetogenins from *Annona Bullata*. *Phytochemistry*. **40** (2): 467-477.
- Gusungi, D.E., Maarisit, W., Hariyadi, H., dan Patalangi, N.O. 2020. Studi Aktivitas Antioksidan dan Antikanker Payudara (MCF-7) Ekstrak Etanol Daun Benalu Langsat *Dendrophthoe pentandra*. *Biofarmasetikal Tropis*. **3** (1): 166-174.

- Hakim, L., Dirgantara, M. dan Nawir, M. 2019. Karakterisasi Struktur Material Pasir Bongkahan Galian Golongan C dengan Menggunakan X-Ray Diffraction (X-RD) Di Kota Palangkaraya. *Jurnal Jejaring Matematika dan Sains.* **1** (1): 44-51.
- Handalis, B.B.N. 2018. *Preparasi dan Karakterisasi Nanopartikel Emas Ekstrak Singkong Gajah (Manihot Esculenta Crantz.) Dengan Proses Biosintesis High Energy.* Skripsi. Yogyakarta: Universitas Islam Indonesia.
- Handayani, W., Imawan, B.C. dan Purbaningsih, S. 2010. Potensi Ekstrak Beberapa Jenis Tumbuhan sebagai Agen Pereduksi untuk Biosintesis Nanopartikel Perak. *Seminar Nasional Biologi.* Yoyakarta: Universitas Gadjah Mada.
- Harmita dan Radji, M. 2008. Analisis Hayati. Jakarta: Penerbit Buku Kedokteran. 76-78
- Haryani, Y., Kartikka, G.F., Yuhamen, E.M., Putri, DT., Alchalish, Y. dan Melanie. 2016. Pemanfaatan Ekstrak Air Rimpang Jahe Merah (*Zingiber officinale* Linn. Var. *Rubrum*) pada Biosintesis Sederhana Nanopartikel Perak. *Chimica et Natura Acta.* **4** (3): 151-155.
- Hejmadi, M. 2010. *Introduction to Cancer Biology.* Momna Hejmadi Ventus Publ.
- Heslop, R.B. 1960. *Inorganic Chemistry: a Guide to Advanced Study.* Elsevier Publishing: Amsterdam.
- Huang, J., Li, Q., Sun, D., Lu, Y., Su, Y., Yang, X., Wang, H., Wang, Y., Shao, W. and He, N. 2007. Biosynthesis of Silver and Gold Nanoparticles by Novel Sundried *Cinnamomum camphora* Leaf. *Nanotehnology.* **18** (10): 105104-105115.
- Ibrahim dan El Nur. 2015. Cytotoxicity study on Maerua pseudopetalosa(Glig and Bened.) De Wolf tuber fractions. *African Journal Plant Science.* **9** (12): 490-497.
- Inayah, M., Maming, dan Zakir, M. 2021. Sintesis Nanopartikel Emas Menggunakan Bioreduktor dari Ekstrak Kulit Buah Manggis (*Garcinia mangostana* L.) Sebagai Indikator Kolorimetri Keberadaan Logam Zn<sup>2+</sup>. *Jurnal Ilmiah Teknik Kimia.* **4** (2): 54-59.
- Irawan, A. 2091. Kalibrasi Spektrofotometer sebagai Penjaminan Mutu Hasil Pengukuran dalam Kegiatan Penelitian dan Pengujian. *Indonesian Journal of Laboratory.* **1** (2): 1-9.
- Jabit, M.L., Khalid, R., Abas, F., Shaari, K., Hui, L.S., Stanslus, J. And Lajis, N.H. 2007. Cytotoxic Xanthones from *Garcinia Penangiana* Pierre. *Journal of Biosciences.* **62** (11): 786-792.
- Jelita, F..F., Setyowati, G.E., Ferdinand, M., Zuhrotun, A. dan Megantara, S. 2020. Uji Toksisitas Infusa Acalypha Siamesis dengan Metode Brine Shrimp Letalhty Test (BSLT). *Farmaka.* **18** (1): 14-22.

- Khan, A.K., Rashid, R., Murtaza, G. dan Zahra, A. Gold Nanoparticles., Synthesis and Applications in Drug Delivery. *Tropical Journal of Pharmaceutical Research.* **13** (7): 1169-1177.
- King, R.J.B. 2000. *Cancer Biologi, Second Edition, Person Education Limited.* London.
- Kumar dan Yadav. 2009. Plant-Mediated Synthesis of Silver and Gold Nanoparticles and Their Applications. *J Chem Technol Biotechnol.* **84:** 7-151.
- Kumar, V., Yadav, S.C. dan Yadav, S.K. 2010. Syzgium cumini Leaf and Extract Mediated Biosynthesis of Silver Nanoparticles and Their Characterization. *Journal Chemistry Technology and Biotechnology.* **85** (10): 1301-1309.
- Kurniawan, H. dan Ropiqa, M. 2021. Uji Toksisitas Ekstrak Etanol Daun Ekor Kucing (*Acalypha hispida* Burm.f.) dengan Metode Brine Shrimp Lethality Test (BSLT). *Journal SYIFA Sciences and Clinical Research.* **3** (2): 52-62.
- La Tapa, F., Suryanto, E. dan Momuat, L.I. 2016. Biosintesis Nanopartikel Perak menggunakan Ekstrak Empelur Batang Sagu Baruk (*Arenga microcarpha*) dan Aktivitas Antioksidannya. *Chem. Prog.* **9** (1): 9-15.
- Lestari, D., Kartika, R., dan Marliana, R. 2019. UJI Brine Shrimp Lethality Test (BSLT) Umbi Bawang Tiwai (*Eleutherine bulbosa* (Mill.) Urb) dan Uji Toksisitas Akut Fraksi Aktif. *Riset Kefarmasian Indonesia.* **1** (1): 1-10.
- Lestari, G.A.D., Cahyadi, K.D. dan Esati, N.K. 2022. Biosintesis Nanopartikel Emas menggunakan Ekstrak Air Buah Andaliman (*Zanthoxylum acanthopodium* DC.). *Cakra Kimia (Indonesian E-Journal of Applied Chemistry).* **10** (1): 17-23.
- Lestari, W., Setiyowati, S., Trianingsih, Asyikin, K.F., Suharmadi, Mujamilah, Sulungbudi, G.T. dan Julyanto, S. 2022. Optimasi Sintesa Nanokoloid Human Serum Albumin sebagai Agen Limfositografi menggunakan Central Composite Design-Response Surface Methodology. *Jurnal Kefarmasian Indonesia.* **12** (1): 69-78.
- Levenson, A.S. and Jordan, V.C. 1997. MCF-7: The First Hormone-Responsive Breast Cancer Cell Line. *Cancer Research.* **57:** 3071-3078.
- Li, S., Al-Misned, F.A., El-Serehy, H.A. and Yang, L. 2021. Green Synthesis Of Gold Nanoparticles Using Aqueous Extract of *Mentha Longifolia* Leaf and Investigation of Its Anti-Human Breast Carcinoma Properties in The In Vitro Condition. *Arabian Journal of Chemistry.* **14:** 1-8.
- Lidiawati, D., Wahab, W. and Karim, Abd. 2019. Synthesis and Characherization of Gold Nanoparticles Using Beluntas Leaf Extract *Pluchea indica*. *Indonesia Chimica Acta.* **12** (1): 1-18.

- Mapiliandari, I. dan Irawan, C. 2009. Brine Shrimp Lethality Test (BSLT) dari Daun Sirih Merah (*Piper crocatum* Ruiz & Pav). *WARTA AKAB.* **21:** 23-29.
- Mason, T.J. dan Lominer, J.P. 2002. *Applied Sonochemistry: The Uses of Power Ultrasound in Chemistry and Processing*. Verlag: Whiley-VCH.
- Mardiana, L. 2004. *Kanker pada Wanita: Pencegahan Pengobatan dengan Tanaman Obat*. Depok: Swadaya.
- Martien, R., Adhyatmika, A., Irianto, L.D. Farida, V. dan Sari, D.P. 2012. Perkembangan Nanoteknologi Nanopartikel sebagai Sistem Pengh. antaran Obat. *Majalah Farmaseutik.* **8** (1): 133-144.
- Meyer, B.N., Ferrigni, R.N., Jacobsen, L.B., Nicholas, D.E., Mc Laughlin, J.L. 1982. Brine Shrimp: A Convenient General Bioassay For Active Plant Constituents. *Planta Med.* **45:** 31-35.
- Momluatuzzahro', Rizki. 2018. *Uji Aktivitas Antikanker Ekstrak Etanol Kombinasi Rumput Laut (*Lophatherum Gracile* B.), Pare (*Momordica Charantia*) dan Kunyit Putih (*Curcuma Seodaria*) pada Sel Kanker Payudara T47D*. Skripsi Tidak Diterbitkan. Malang: Universitas Islam Negeri Maulana Malik Ibrahim.
- Morshed, H., Islam, M.S., Parvin, S., Ahmed, M.U. dan Islam, M.S. 2012. Antimicrobial and Cytotoxic Activity of the Methanol Ekstrak of *Paederia foetida* Linn. (Rubiaceae). *Journal of Applied Pharmaceutical Science.* **2** (1): 77-80.
- Muaja, A.D. 2013. Uji Toksisitas dengan Metode BSLT dan Analisis Kandungan Fitokimia Ekstrak Daun Soyogik (SauraniabrateosaDC) dengan Metode Soxhletasi. *Jurnal MIPA UNSRAT Online.* **2:** 115-118.
- Muharram. 2010. Isolasi dan Uji Bioaktivitas Senyawa Metabolit Sekunder Ekstrak n-Heksan Daun Pare (*Momordica charantia* L.). *Bionature.* **11** (2): 70-78.
- Muniyappan, N., Pandeeswaran, M. and Amalra, A. 2021. Green Synthesis of Gold Nanoparticles Using Curcuma Pseudomontana Isolated Curcumin: Its Characterization, Antimicrobial, Antioxidant and Anti-Inflammatory Activities. *Environmental Chemistry and Ecotoxicology.* **3:** 117–124.
- Nagalingam, M., Kalpana, V.N. and Panneerselvam, A. 2018. Biosynthesis, Characterization and Evaluation of Bioaktif of Leaf Extract-Mediated Biocompatible Gold Nanoparticles from *Alternanthera bettzickiana*. *Biotechnology Report.* **19:** 1-12.
- Nahar, M.K., Zakaria, Z., Hashim, U. and Bari, Md.F. 2015. Momordica Charantia Fruit Mediated Green Synthesis of Silver Nanoparticles. *Green Process Synth.* **4:** 235–240.
- Nengsih, S. 2018. Kajian Variasi Ukuran Nanopartikel Emas Melalui Metode Seed Mediated Growth. *Jurnal Pendidikan Fisika dan Fisika Terapan.* **2:** 4-9.

- Ningdyah, A.W., Alimuddin, A.H. dan Jayuska, A. 2015. Uji Toksisitas dengan Metode BS LT (*Brine Shrimp Lethality Test*) terhadap Hasil Fraksinasi Ekstrak Kulit Buah Tampoi (*Baccaurea macrocarpa*). *JKK*. **4** (1): 75-83.
- Nuraeni, W., Daruwati, I., Maria, E.W. dan Sriyani, M.E. 2013. Verifikasi Kinerja Alat Particle Size Analyzer (PSA) Horiba Lb-550 untuk Penentuan Distribusi Ukuran Nanopartikel. *Prosiding Seminar Nasional Sains dan Teknologi Nuklir PTNBR-BATAN*, Bandung.
- Nurlaila, E. dan Tukiran. 2017. Analisis Spektrofotometer UV-Vis dan FT-IR dari Senyawa Hasil Isolasi Ekstrak Kloroform Kulit Batang Tumbuhan Salam (*Syzygium polyanthum*). *UNESA Journal of Chemistry*. **6** (1): 32-35.
- Nurmaulawati, R., Purwidyaningryum, I. dan Indrayati, A. 2021. Kajian Literatur Uji Aktivitas Antikanker Payudara Tanaman Ranti (*Solanum nigrum* Linn.) secara In Vitro dan In Vivo. *Pharmacy Medical Journal*. **4** (2): 44-53.
- Perumal, V., Khatib, A., Ahmed, Q.U., Uzir, B.F., Murugesu, F.A.S., Saiman, M.Z., Primaharinastiti, R. and El-Seedi, H. 2021. Antioxidants Profile of *Momordica Charantia* Fruit Extract Analyzed Using LC-MS-QTOF-Based Metabolomics. *Food Chemistry: Molecular Sciences*. **2**: 1-8.
- Phamjom, P. dan Ahmed, G. 2017. Effect of Different Physicochemical Conditions on the Synthesis of Silver Nanoparticles using Fungal Cell Filtrate of *Aspergillus oryzae* (MTCC No. 1846) and Their Antibacterial Effect. *Advances in Natural Sciences: Nanoscience and Nanotechnology*. **8**: 1-13.
- Pimpang, P. and Choopun, S. 2011. Monodispersity and Stability of Gold Nanoparticles Stabilized by Using Polyvinyl Alcohol. *Chang Mai J. Sci.* **38** (1): 31-38.
- Prakoso, G., Aulung, A. dan Citrawati, M. 2016. Uji Efektivitas Ekstrak Buah Pare (*Momordica charantia*) pada Mortalitas Larva *Aedes aegypti*. *Jurnal Profesi Medika*. **10** (1): 46-53.
- Princy, K.F. and Gopinath, A. 2018. Optimization of Physicochemical Parameters in The Biofabrication of Gold Nanoparticles using Marine Macroalgae *Padina tetrastromatica* and Its Catalytic Efficacy in The Degradation of Organic Dyes. *Journal of Nanostructure in Chemistry*. **8** (3): 333-342.
- Priyanto. 2009. Toksikologi Mekanisme Terapi Antidotum dan Penilaian Resiko. Jakarta: Lembaga Studi dan Konsultasi Farmakologi. 156-167.
- Rahma, D.E. 2019. *Sintesis Nanopartikel Emas Menggunakan Bioreduktor Ekstrak Daun Ketapang (Terminalia catappa) dengan Iradiasi Microwave*. Skripsi. Malang: Universitas Islam Negeri Maulana Malik Ibrahim.
- Rahmawanty, D., Effionora, A. dan Anton, B. 2014. Formulasi Gel menggunakan Ikan Haruan (*Channa striatus*) sebagai Penyembuh Luka. *Media Farmasi*. **11** (1): 29-40.

- Rahmawati, E., Sukardiman, dan Annisa, F.M. 2013. Aktivitas Antikanker Ekstrak n-Heksan dan Ekstrak Metanol Herba Pacar Air (*Impatiens balsamina* Linn.) terhadap Sel Kanker Payudara T47D. *Media Farmasi.* **10** (2): 47-55.
- Raina, K., Kumar, D. and Agarwal, R. 2015. Promise of Bitter Melon (*Momordica Charantia*) Bioactives in Cancer Prevention and Therapy. *Int. J. Res, Chem. Environ.* **4** (2): 338-342.
- Rampersad, S.N. 2012. Multiple Applications of Alamar Blue as an Indicator of Metabolic Function and Celluar Health in Cell Viability Bioassays. *Journal Sensors.* **2** (1): 12347-12360.
- Rashid, Md., Mamun, Or., Akhter, K.N., Chowdhury, J.A., Hossen, F., Hussain, Md.S. and Hossain, Md.T. 2017. Characterization of Phytoconstituents And Evaluation of Antimicrobial Activity of Silverextract Nanoparticles Synthesized from *Momordica Charantia* Fruit Extract. *BMC Complementary and Alternative Medicine.* **17**: 1-7.
- Rastogi, S. 2016. Controlled Aqueous Phase Synthesis of Gold Nanoparticles Using Fruit Extract of *Momordica charantia*. *Journal of Materials Nanoscience.* **3** (1): 11-13.
- Reghunandan, D., Bedre, MD., Basavaraja, S. Sawle, B. and Mjunath, SY. 2010. Rapid Biosynthesis of Irregular Shaped Gold Nanoparticles from Macerated Aqueous Extracellular Dried Clove Buds (*Syzygium Aromaticum*) Solution. *Colloids Surfaces B Biointerfaces.* **79**: 235-240.
- Roza, M. 2018. Analisis Kandungan Emas pada Batuan Sedimen dari Silago Kabupaten Dharmasraya dengan Menggunakan Spektrofotometri Serapan Atom (SSA). *Natural Science Journal.* **4** (1): 492-502.
- Saad, A.M., Abdel-Aleem, A.H., Ghareeb, M.A., Hamed, M.M., Abdel-Azis, M.S. dan Hadad, A.H. 2017. In Vitro Antioxidant, Antimicrobial and Cytotoxic Activities and Green Synthesis of Silver and Gold Nanoparticles Using *Callistemon citrinus* Leaf Extract. *Journal of Applied Pharmaceutical Science.* **7** (06): 141-149.
- Safaat, M. 2021. Peran Naopartikel dalam Menghambat Pertumbuhan Parasit *Plasmodium* Penyebab Malaria. *J Bioteknol Biosains Indones.* **8** (1): 124-236.
- Sang, M.L., Lee. and Won-Yong, L. 2002. Determination of Heavy Meta I Inor Using Conductometric Biosensor Based on Sol-Gel I Mmobilized Urease. *Bulletin of The Korean Chemical Society.* **23** (8): 1169-1172.
- Saputra, I.S., Suhartiati, S., Yulizar, Y., dan Sudirman. 2020. Synthesis and Characterization of Gold Nanoparticles (AuNPs) by Utilizing Bioactive Compound of *Imperata cylindrica* (L.) Raeusch. *J.Kim.Terap.Indones.* **22** (1): 1-7.
- Saundres, J.A., Burke, M. dan Brueseke, M.E. 2020. Scanning Electron Microscope Imaging of Gold (Electrum) Nanoparticles in Middle Bonanza

- Epithermal Ores Miocene Bonanza Epithermal Ores From Nothern Nevada, USA. *Mineralium Deposita*. **55** (3): 389-398.
- Septiningsih, R., Sutanto, dan Indriani, D. 2017. Aktivitas Antioksidan Ekstrak Etanol Daun, Buah dan Biji Pare (*Momordica charantina L.*). *Fitofarmaka*. **7** (1): 2-12.
- Shabestariana, H., Homayouni-Tabrizi, M., Soltani, M, Namvar, f., Azizi, S., Mohamadd, R., dan Shabestarian, H. Green Synthesis of Gold Nanoparticles Using Sumac Aqueous Extract and Their Antioxidant Activity. *Materials Research*. **20** (1): 264-270.
- Shobha, CR., Prashant, V., Suma, MN., Akila, P., Chandini, R. and Basavana, G.H. 2021. In Vitro Anticancer Activity of Ethanolic Extract of *Momordica charantia* on Cervical and Breast Cancer Cell Lines. *International Journal of Health and Allied sciences*. **4** (4): 210-217.
- Sing, C., Baboota, R.K., Naik, P.K. dan Singh, H. 2012. Biocompatible Synthesis of Silver dan Gold Nanoparticles using Leaf Extract of *Dalbergia sisoo*. *Advanced Materials Letters*. **3** (4): 279-285.
- Singh, A.K., Tiwari, R., Singh, V.K., Singh, P., Khadim, Sk.R., Singh, U., Laxmi., Srivastava, V., Hasan, S.H. and Asthana, R.K. 2019. Green Synthesis of Gold Nanoparticles from Dunaliella Salina, Its Characterization and In Vitro Anticancer Activity on Breast Cancer Cell Line. *Journal of Drug Delivery Science and Technology*. **51**: 164–176.
- Sirait, P.S., Setyaningsih, I. dan Tarman, K. 2091. Aktivitas Antikanker Ekstrak Spirulina yang Dikultur pada Media Walne dan Media Organik. *Jurnal Pengolahan Hasil Perikanan di Indonesia*. **22** (1): 50-59.
- SNI ISO/IEC 17025. 2008. *Persyaratan umum kompetensi Laboratorium Pengujian dan Laboratorium Kalibrasi*. Badan Standarisasi Nasional.
- Sujatno, A., Salam, R., Bandriyana dan Dimyati, A. 2015. Studi Scanning Electron Microscopy (SEM) untuk Karakterisasi Proses Oxidasi Paduan Zirkonium. *Jurnal Forum Nuklir*. **9** (2): 44-50.
- Sukardiman, Rahman, A., dan Pratiwi, N.F. 2004. Uji Praskrining Aktivitas Antikanker Ekstrak Eter dan Ekstrak Metanol *Marchantia cf.planiloba* Steph. Dengan Metode Uji Kematian Larva Udang dan Profil Densitometri Ekstrak Aktif. *Majalah farmasi Airlangga*. **4** (3): 97-100.
- Sulistyani, M. dan Nuril, H. 2017. Optimasi Pengukuran Spektrum Vibrasi Sampel Protein Menggunakan Spektrofotometer Fourier Transform Infrared (FT-IR). *Indo. J. Chem. Sci.* **6** (2): 173-180.
- Supraja, N., Avinash, B. and Prasad, T.N.V.K.V. 2017. Green Synthesis and Characterization of Silver Nanoparticles from *Momordica charantia* Fruit Extract: Study of Antimicrobial Activities. *Int. J. Pure App. Biosci.* **5** (2): 107-117.

- Suryaningsih, E.K. dan Sukaca, B.E. 2009. *Kupas Tuntas Kanker Payudara*. Yogyakarta: Paradigma Indonesia.
- Suseno, J.E dan Firdausi, K.S. 2008. Rancang Bangun Spektroskopi FTIR (*Fourier Transform Infrared*) untuk Penentuan Kualitas Susu Sapi. *Berkala Fisika*. **11** (1):23-28.
- Susilowati, R.P. 2017. Efektivitas Daun Permot (*Passiflora foetida*) sebagai Obat Nyamuk dan Pengaruhnya Terhadap Sel Darah Mencit. *Jurnal Kedokteran Meditek*. **23** (62): 1-10.
- Thakkar, K.N., Mhatre, S.S. and Pharikh, R.Y. 2010. Biological Synthesis of Metallic Nanoparticles. *Nanomedicine: Nanotechnology, Biology, and Medicine*. **6**: 257-262.
- Thomson, A.J. 2007. The Discovery, Use and Impact of Platinum as Chemotherapy Agent for Cancer, Welcome Trust Witnesses to Twentieth Century. *Journal Medicine*. **30**: 6-15.
- Triharini, M., Yunitasari, E., Armini, N.K.A., Kusumaningrum, T., Pradanie, R. dan Nastiti, A.A. 2019. Pemberdayaan Perempuan Melakukan Deteksi Dini Kanker Serviks Melalui Pelatihan Metode Reproduktif Organ Self Examination (Rose) sebagai Upaya Deteksi Dini Penyakit Kanker Serviks. *Jurnal Pengabdian Masyarakat Dalam Kesehatan*. **1** (1): 14-20.
- Underwood, A.L. 2002. *Analisis Kimia Kualitatif Edisi Keenam*. Jakarta: Erlangga.
- Utami, A.W.A, Wahyudi, A.T., Batubara, A.I. 2014. Toxicity, Anticancer and Antioxidant Activity of Extract from Marine Bacteria Associated with Sponge *Jaspis* sp. *International Journal of Pharma and Bio Sciences*. **5** (4): 917-923.
- Verma, H.N., Singh, P. and Chavan, R.M. 2014. Gold Nanoparticle: Synthesis and Characterization. *Veterinary World*. **7** (2): 72–77.
- Wahab, A.W., Karim, K. La Nafie, N. dan Nurafni, I.W. 2018. Synthesis of Silver Nanoparticles using *Muntingia calabura* L. Leaf Extract as Bioreductor and Applied as Glucose Nanosensor. *Oriental J. Chem.* **34** (6): 3088-3094.
- Wahab, A.B., Hasyim, M.F., dan Pratiwi, M.W.A. 2020. Synthesis and Characterization of Gold Nanoparticles using the Bioreductor Bay Leaf (*Syzygium polyanthum*). *Indo. Chim. Acta*. **13** (2): 79-84.
- Wahyudi, T., Sugiyana, D. dan Helmy, Q. 2011. Sintesis Nanopartikel Perak dan Uji Aktivitasnya terhadap Bakteri *E. coli* dan *S. aureus*. *Arena Tekstil*. **26** (1): 1-60.
- Wang, L., Clardy, A., Hui, D., Gao, A. and Wu, Y. 2019. Antioxidant and Antidiabetic Properties of Chinese and Indian Bitter Melons (*Momordica charantia* L.). *Food Bioscience*. **29**: 73-80.

- Warditiani, N.K., Indrani, A.A.I.S, Sari, N.A.P.P., Swasti, I.A.S., Dewi, N.P.A.K., Widjaja, I.N.K. dan Wirasuta, I.M.A.G. 2015. Pengaruh Pemberian Fraksi Terpenoid dan Katuk (*Sauvopus androgynus* L. Merr) Terhadap Profil Lipid Tikus Putih (*Rattus norvegicus* L.) Jantan Galur Wistar yang di Induksi Pakan Kaya Lemak. *Jurnal Farmasi Udayana*. **4** (2): 66-71.
- Wasita, B., Wiyono, N., Suyatmi, S., Yudhani, R.D., Rahayu, R.F., Yarso, K.Y., dan Pesik, R.N. 2021. Upaya Prevetif Kanker Cervix dan Kanker Payudara di Masa Pandemi Melalui Seminar Daring Bagi Masyarakat Kota Solo dan Sekitarnya. *Ilmu Kesehatan dan Aplikasinya*. **9** (1): 142-146.
- Wati, E.K., Puspaningtyas, A.R. and Pangaribowo, D.A. 2016. Uji Sitotoksitas dan Proliferasi Senyawa 1-(4-nitrobenzoiloksi\_metil)-5-fluorourasil terhadap Sel Kanker Payudara MCF-7 (Cytotoxicity and Proliferation Studies of 1-(4-nitrobenzoyloxy\_methyl)-5-fluorouracil) on Breast Cancer Cells MCF-7). *Jurnal Pustaka Kesehatan*. **4** (3): 484-488.
- Widowati, W., Murti, H., Widyastuti, H., Laksmitawati, D.R., Rizal, R., Kusuma, H.S.W., Sumitro, S.B., Widodo, M.A. and Bachtiar, I., 2021. Decreased Inhibition of Proliferation and Induction of Apoptosis in Breast Cancer Cell Lines (T47D and MCF7) from Treatment with Conditioned Medium Derived from Hypoxia-Treated Wharton's Jelly MSCs Compared with Normoxia-Treated MSCs. *International Journal of Hematology-Oncology and Stem Cell Research*. **15** (2): 77-89.
- Winarti, L. 2011. Penggunaan Formulasi Nanopartikel Kitosan Sebagai Sistem Penghantaran Gen Non Viral untuk Terapi Gen. *Stomatognatic (J.K.G Unej)*. **8** (3): 142-150.
- Wirata, R.B. 2021. Edukasi Defeksi Dini Kanker Payudara dan Sadari di Posbindu Apsari, Yogyakarta. *Jurnal Pengabdian pada Masyarakat*. **5** (2): 196-202.
- Wiyani, GM., Astri., Putri, S.E. dan Syahrir, M. 2021. Biosintesis Nanopartikel Emas Menggunakan Ekstrak Etanol Daun Jambu Bol Putih. *Sains dan Terapan Kimia*. **15** (1): 18-30.
- World Health Organization (WHO). 2018. International Agency Research on Cancer. (Online), (<https://www.who.int/cancer/en>, diakses 15 Mei 2021).
- Yasser, M.S.E., Widiyanti, and Arif, A.R. 2017. Synthesis and Characterization of Gold Nanoparticles using Teak Leaf Extract *Tectona Grandis*. *Indones Chim Acta*. **10** (1): 69– 72.
- Yasser, M. 2013. *Sintesis dan Karakterisasi Nanopartikel Emas Dari Daun Gedi Untuk Sensor Kadar Glukosa Darah*. Thesis. Makassar: Universitas hasanuddin.
- Yeh, Y.C., Creran, B. and Rotello, V.M. 2012. Gold Nanoparticles: Preparation, Properties, and Applications In Bionanotechnology. *Nanoscale*. **6** (4): 1871– 1880.

- Yordan, S., Hasib, A., Irbrahim, M.H.R., Rohmah, S.N., Abani, S. dan Yudaniayanti, I.S. Analysis of Scanning Electron Microscope (SEM) Microarchitecture of Methapysical Os Femur in Ovariyoysterectomized rats with Honey Bees Sumbawa Forest (*Apis dorsata*). *Jurnal Sains Veteriner*. **36** (1): 58-65.
- Zahrah, A. dan Sunaryo, A. 2010. *Uji Sitotoksisitas Fraksi Etil Asetat Ekstrak Etanol 70% Buah Pare (Momordica charantia L.) terhadap Sel Hela*. Skripsi. Jakarta: Universitas Muhammadiyah Prof. Dr. Hamka.
- Zakir, M., Sekine, T., Takayama, T., Kudo, H., Lin, M. and Katsumura, Y. 2005. Technetium (IV) Oxide Colloids and The Precursor Produced by Bremsstrahlung Irradiation of Aqueous Pertechnetate Solution. *J. Nucl. Radiochem. Sci.* **6** (3): 243-247.
- Zhang, L. dan Wang, Z.S. 2016. Gold Nanoparticles as an Ultrathin Scattering Layer for Efficient Dye-Sensitized Solar Cells. *J. Mater. Chem.* **4**: 3614-3620.
- Zulaicha, A.S., Saputra, I.S., Sari, I.P., Ghifari, M.A., Yulizar, Y., Permana, Y.N. dan Sudirman. 2021. Green Synthesis Nanopartikel Perak (AgNPs) Menggunakan Bioreduktor Alami Ekstrak Daun Ilalang (*Imperata cylindrica* L.). *Rafflesia J. Nat. Applied Sci.* **1** (1): 11-19.